

Remarks

Reconsideration of pending Claims 1-6, 8-14, 16-25, 27-45, 47-48, 50-60, 62-71, 74, 75, 77-79 and 139-156 is respectfully requested.

Claims 1, 8-10, 16, 31, 42, 62, 139-143 and 146-148 have been amended.

Claims 7 and 46 are currently canceled.

The amendments claims are intended to merely clarify the subject matter claimed. No new matter has been added with the amendments of the claims.

Objections to Claims

At paragraph 8, the Examiner objected to Claims 76, 77, 144 and 145 on the basis that they do not limit the claimed composition but simply add limitations to its *intended use*.

First of all, Claim 76 was *previously* canceled – and is no longer pending.

Second, the claims do not define an intended use.

Claim 77 depends from Claim 62.

Claim 62 (as amended) defines a cleaning composition, reciting that the elements – a cleaning agent, antimicrobial agent and solvent – are *in amounts effective to* (a) inhibit microbial growth, and (b) remove residual particles.

62. A cleaning composition for cleaning a planarized or polished surface of a semiconductor wafer, the composition consisting essentially of: a mixture of a cleaning agent, an antimicrobial agent selected from the group consisting of benzoic acid, sorbic acid, and salts thereof, and solvent *in amounts relative to one another to formulate an effective cleaning composition such that microbial growth within the cleaning composition is inhibited*, and when the composition is in contact with both a metal conductive structure and a dielectric layer, *residual particles are removed* therefrom with no significant defects to the conductive structure or the dielectric layer, and microbial deposition on the planarized or polished surface is inhibited, the composition having a pH of about 5-6.5.

Claim 77 further defines the residual metal particles.

77. The cleaning composition of Claim 62, wherein the residual metal particles are selected from the group consisting of copper, aluminum, platinum, titanium, silver, tungsten, and tantalum particles.

The claims do not recite an "intended use." Claim 62 recites *effective amounts of the elements of the composition* – such that microbial growth is inhibit and residual particles are removed. Claim 77 *delineates* the residual metal particles.

This also applies to Claims 144-145 – which depend from Claim 143.

Claim 143 recites "effective amounts of a cleaning agent, antimicrobial agent, and solvent" for a cleaning composition for removal of residual particles. Claims 144-145 *delineate* the residual metal particles.

Contrary to the Examiner's assertion, the claims do not recite an "intended use." The claims recite effective amounts of the elements of the composition.

Accordingly, withdrawal of the Examiner's objections to the claims is respectfully requested.

Rejection of Claims under 35 U.S.C. § 103(a) (Pregozen)

The Examiner maintained the rejection of Claims 1-7, 9, 10, 18-20, 22-24, 27, 28, 30-35, 37, 42-46, 50, 55-60, 62-66, 70, 71, 77, and 139-144, 146 and 148 under Section 103(a) as obvious over Pregozen (USP 5,141,830). This rejection is respectfully traversed.

The Examiner stated as follows:

The difference between Pregozen and the instant claims that Pregozen uses 0.03%wt of biocide, while Applicants' transitional phrase "consisting essentially of" exclude the components that materially change the composition. However, by the definition "biocide" is chemical that kills microorganisms... Therefore the addition of biocide in Pregozen will only enhance the antimicrobial action of potassium sorbate as the antimicrobial agent, and therefore, such combination would have been obvious

The Examiner misstates Pregozen's disclosure.

Pregozen does not merely disclose a "biocide."

Rather, Pregozen particularly teaches a cationic biocide.

Pregozen states as follows (at col. 1, lines 10-18; at col. 2, lines 61-64; col. 3, lines 27-31 and 43-46 (emphasis added):

The invention relates to nonwoven wet wipes...impregnated with an aqueous non-alcoholic composition in which the preservative system...comprises potassium sorbate, citric acid, disodium ethylenediaminetetraacetate *and a cationic agent selected from polyhexamethylene biguanide hydrochloride and poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]*.

...
...However, it was surprisingly found that incorporation of either of two specific cationic biocides greatly minimized the slippery feel of the wet wipe.

...
...The preservative system is comprised of potassium sorbate, disodium ethylenediaminetetraacetate (disodium EDTA), a cationic biocide selected from two specific agents described more fully hereinbelow and citric acid.

...
The cationic biocide is selected from polyhexamethylene biguanide hydrochloride and poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]...

Pregozen particularly teaches the inclusion of a cationic biocide – and particularly two specific biguanides, which are polymeric cationic compounds – namely, *polyhexamethylene biguanide hydrochloride and poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]*. Pregozen teaches that these biguanides are critical to the composition to produce the described effect – of "greatly minimizing the slippery feel of a wet wipe." As such, the cationic biocide produces a *material effect* in Pregozen's composition.

Applicant's compositions as claimed are limited to an antimicrobial agent selected from benzoic acid, sorbic acid, and salts thereof. The inclusion of a biguanide as taught by Pregozen would effect a material change to Applicant's compositions.

Pregozen does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. § 103(a) (Pregozen, Small)

The Examiner rejected Claims 16, 17, 51-54 and 147 under Section 103(a) as obvious over Pregozen in view of Small (USP 6,156,661). This rejection is respectfully traversed.

The Examiner maintains that it would be obvious to utilize an ammonium hydroxide (TMAH, NH₄OH) buffering agent in the composition taught by Pregozen.

For the above-stated reasons as to the failure of Pregozen to teach or suggest Applicant's compositions as presently claimed, the added disclosure of Small does not correct the deficiencies of Pregozen.

Pregozen, either alone or combined with Small, does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Extension of Term. The proceedings herein are for a patent application and the provisions of 37 CFR § 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition for extension of time. If any extension is

required and/or any fee is due, please consider this a petition therefor and charge the required fee to Account No. 23-2053.

It is respectfully submitted that the claims are in condition for allowance and notification to that effect is earnestly solicited.

Respectfully submitted,



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